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REMARKS ON THE THERAPEUTICS OF ESSENTIAL EPILEPSY.*

BY L. PIERCE CLARK, M.D., NEW YORK CITY.

MY thanks are due the National Association for the Study of Epilepsy for electing me its president this year. Being the first medical charter member of the society, I can say with a great deal of pride that I have followed its gradual growth with satisfaction. The importance of such a society can be realized when we bear in mind the number of enduring sufferers from this disease aggregate nearly half a million in the United States; less than three and five-tenths per cent. are under special care and only thirteen states care for epileptics numbering seven thousand patients. The public policy of establishing a society like ours in which the purpose is to promote the pathologic, therapeutic, social, and medico-legal study of the epilepsies, seems not only wise but most beneficent in its purpose.

Time does not permit us to cover the many interesting questions and problems of treatment of the epilepsies as a whole, organic and idiopathic, so we shall confine ourselves to outlining some of the more salient therapeutic principles applicable to the care and treatment of the epileptic as an individual. Only too often epileptologists make the statement that the patient, and not the disease itself, is really to be treated; but studies usually lack any very painstaking analysis of just how this wise provision may be put into operation.

It has always been a mooted question just how far one might interpret the nature of essential epilepsy by epileptiform attacks in organic brain disease, or from experimentally induced fits in animals. So long as we maintained that the muscular spasm was the essential syndrome of genuine epilepsy, the analogy worked well; but as soon as we began to take into account the totality of the epileptic as an individual and that the loss of consciousness was the signal symptom, the usefulness of the similarity began to decrease until finally we are forced to the conclusion that though the spasm in organic and in essential epilepsy is probably similar, the initiation of the seizure phenomena is essentially different in the two conditions. There can be little doubt that Hughlings Jackson's chemical and mechanical theory for the spasm of epilepsy,—that of phosphonitrogen instability of cortical elements and the Leyden Jar illustration of the discharge,—is as good as any we have today. Aside from some slight

* Presidential address before the National Association for the Study of Epilepsy, New York, June 3, 1920.

differences as to the actual nerve tracts over which the nerve discharge takes place, we have learned little from organic studies as to the nature of essential epilepsy. In a large series of autopsy studies on the genuine disorder one might have expected to find nerve changes in the cortex analogous at least to those in organic brain disease or experimentation. But these changes in the majority of essential epilepsies were either variable, or entirely wanting. We have been forced to conclude, therefore, that we cannot predict what cortical changes, if any, one may find in any single case of essential epilepsy at autopsy. In view of this anatomic and histopathologic disappointment many have turned their attention from pathologic studies to disfunctions of the different organs, and especially to the disorder of the ductless glands. We may summarize the status of organotherapy by the statement that so far as we know essential epilepsy is not benefited at all by the procedure. The value of such a system of medication seems largely confined to those epilepsies in which the disfunction of the endocrines is demonstrable by other signs than those seen in the epileptic reactions themselves.

Even though the most careful researches of the brain be made in epilepsy, one is at a loss to connect up the changes, if any are found, with the profound deterioration in social and economic efficiency of the epileptic individual. In point of fact there is no more confuting instance of failure of a psychophysical parallelism than the attempt to couple up the cortical changes with the mental factors seen in the disease.

Of recent years it would seem that a much more coherent plan of interpretation of the epileptic individual has been put forward. But before we state this we may consider the so-called affective epilepsies. Perhaps the first impetus was given in 1871 by Westphal, who, in a paper on agoraphobia, cited that classic epileptic fits to the verisimilitude of tongue biting and voiding are not uncommon in agoraphobia and various psychopathic and neuropathic conditions. Others like Spiller, Dana, Stallmann and Oppenheim also published similar papers upon this subject. Bratz, in 1907, discussed at considerable length what he termed affective epilepsy in young neuropathically tainted individuals. In his cases the attacks appeared in childhood and disappeared entirely in later life; the individuals were apparently without any specific makeup of the epileptic personality and showed no progressive mental deterioration. Many of his studies were upon individuals showing evidence of shiftlessness and feeble-mindedness. They showed physical stigmata of biologic inferiority and vasomotor disturbances. A little later Orbison in commenting upon such cases showed the great variability of such peculiar attacks in different and even in the same individuals. But in reviewing all this reported material one is impressed that some of it may be psychic or motor petit mal of true epilepsy, though the major portion of the studies is obviously dealing with various psychoneurotic states that are not at all closely connected with essential epilepsy. Independent of organic disease of the brain as such we know that occasional true epileptic attacks may appear in nearly all the benign psychoses, and particularly in dementia praecox. Indeed, Kraepelin thinks that epileptic seizures may be found in at least twenty-five per cent. of the latter class,—a percentage which is obviously too high. There can be little doubt that attacks in the psychoneurotic are not really epileptic but are convulsive episodes which can be rather easily removed by proper mental hygiene or more definite psychotherapeutic means. Some other investigators, following in the footsteps of these pioneers in studies of the affective epilepsies, hoped to prove a sufficient affective element in many supposedly essential epileptics, and therefore tried to treat them with the same general principles, hoping thereby to bring about great amelioration or cure. The movement as a whole, however, including the best efforts at psychoanalysis, was doomed to failure,—not because there were no affective elements in essential epilepties but because the underlying fault in the latter is a congenitally inherent defect of the instinctive life. We may conclude, however, that there is a very small percentage of functional convulsions of affective origin which is neither hysteric in character nor similar to essential epilepsy, but which is to be put in a class by itself and considered as affective in origin, because of (1) certain psychogenic factors, (2) the absence of the epileptic diathesis, (3) the intractability by drugs, and (4) the response to the psychoanalytic methods and moral training. Thus we see the study of the affective epi-

lepsies did not materially aid the great group of essential epilepties, because the basic anlage from which the two disorders take their origin is quite as different as that existing between the organic and functional epilepsies; and we see the attempt to carry over the therapeutic deductions of epileptiform attacks from gross lesions of the brain to that of essential epilepsy has been so therapeutically disappointing. Largely initiated by the teachings of Hoch and by the personality studies of MacCurdy, Campbell, Kirby and others, I undertook to study the data of the personality makeup of the epileptic individual before the seizure part of his malady put in an appearance.

As we know, from ancient times the essential epileptic has been considered a peculiar type of individual. The salient features of the so-called epileptic personality in its most exquisite and classic evolution are egocentricity, extreme supersensitiveness, marked emotional poverty and rigidity of ideation and mentation. For years this character type has been supposed to develop in direct proportion to the severity and frequency of epileptic seizures upon which it has been assumed to depend more or less directly. Careful analysis has, however, shown that while the most glaring character faults and mental deterioration may be seen in those epilepties with frequent and severe seizures, this is by no means the invariable rule, there being many defects of instincts and evidences of severe habit deterioration in epilepties with but mild seizures. Indeed, many epilepties may undergo increasing impairment in seizure frequency and severity independent of sedatives, and yet such individuals may show by life reactions as well as by psychological tests that the deterioration is progressive and marked. The reverse of this statement may also be shown. In consequence we have come to realize that while the severity and seizure frequency on the one hand, and instinctive defects and mental defects on the other, may be to some degree coincident, they bear no essential mutual relation. On the contrary both syndromes are the expressions of a deteriorating process not summated in fits or their congeners. It was found that in practically all there was nothing wanting in mental makeup not seen in the frank and veteran epileptic. The character faults varied, perhaps, in the amount and degree present in such potential states before seizures, but the character defects were sufficiently glaring to mark such individuals as pathological personalities portending a possible epilepsy of later life. Given such a character makeup in the predisposed individual, it is comparatively easy to understand how the growing adaptive stresses of life may break such individuals into frank manifestations of their disorder. In a paper read before this association last year I outlined in detail the stresses of the different epochal levels and attempted to show how the relatively trivial causes given by patients and relatives are only *real* causes when one bears in mind the type and character of the individual who experiences them and present an epileptic reaction as a result.

Given the inherent defect of makeup just detailed, it is easy to comprehend how all forms of undue physical and mental stress may operate deleteriously upon the epileptic. The gradations of epileptic reactions vary from day-dreaming, lethargies, petulance, sullenness, and outbursts of impatience and temper beyond the casual, until there succeeds a series of petit mal attacks or a severe grand mal, when the lowering skies in the epileptic's life are dispelled for a time until the stresses again accumulate to an explosive level. So long as normal consciousness is maintained the stress may work its evil consequence in ways well known to all. The epileptic reaction from its mildest to its severest manifestation is really a protection, for it obliterates reality and reduces the subject to the lowest level of organic response —that of a comatose state. Hence the fit is really a protective mechanism. It withdraws or reduces the subject's attachment and adjustments to reality. It dispels an intolerable demand and the epileptic retreats to a state of harmony and peace. In the retreat after incomplete attacks we frequently encounter unconscious strivings and conflicts that have baffled the subject. So exogenous causes, physical and mental in character, slight as they may seem to be, precipitate a conflict which springs the fit-gun and a series of conflicts of different levels in the unconscious are exposed until after the severest grand mal attack the subject is reduced to the lowest level, comparable to earliest infantile life. Thus we find in the mild and transitory deliria of the automatic phase after petit mal attacks the subject may say or do certain things which may be pieced together and minutely analyzed. Like the mental con-

tent in manic states or drug and fever deliria, these spontaneous productions have to do with the conflicts of everyday life. Then appear the successive deeper levels of emotional strivings and conflicts. For instance, at first the epileptic attempts to rid himself of an onerous task or unpleasant companions; then deeper motives such as sexual strivings are uncovered and in the deepest level he has made a retreat to the home, is in the cradle or the mother's arms, etc.

It is unnecessary to say that all the foregoing description of the epileptic makeup is not new, neither is the factor of undue stress entailing epileptic reactions, nor the mechanism of analysis of the mental content of the twilight, befogged or transitory deliria after the fit. One might also point out that the therapeutic advantages derived from such studies are but attempts at more specific means of treatment of epileptics already in empirical practice. For instance, the elaborate systems of colony life in which the epileptic can comfortably and easily adapt himself are but conscious recognitions of the epileptic's peculiar makeup and an effort that his life stress level shall be approximated.

What are the specific methods for training an epileptic? In handling the individual epileptic it is first necessary to analyze the specific conflicts which he has to meet in life and note his type of mismanagement of them. Then to consciously increase the patient's insight into the situation is absolutely necessary. It has been the custom so long to merely note the epileptic defect and not make him aware of his own inherent fault that this method alone is almost revolutionary. Heretofore this specie of autognosis, or self-knowledge, has been left to well-meaning friends, nurses, religious instructors or tutors, and has not been brought into the physician's own armamentarium. Perhaps it has been held to be of so little medical moment, or that the process of wise teaching entailed has been thought to be so time consuming that the physician has neglected his plain duty. But since the newer principles of reëducation and psychoanalysis in the neuroses have been established, similar methods are really found to be of service in essential epilepsy. Proceeding with this method sooner or later one finds that the epileptic individual possesses a very crude type of personality. No mere explanatory talk about his character-defect will remove it. Essential epilepsy in its inability to be analyzed away demonstrates that it is not a neurosis but a profound disorder of the instinctive life. Analysis but points out the glaring defect and it is then possible to lay down a daily schedule of character training and practice in concrete instances wherein the epileptic may learn day by day, little by little, the means of overcoming his faults of character. Analysis but points out the specific reëducation possible. In many instances notes of the analyzed defects should be taken by the patient himself or summarized by the teaching physician so that the epileptic individual may go over it again and again. He is apt to forget the explanatory talks as a protective mechanism common to all humanity. The fit itself obliterates the imprint of the corrective advices. Thus it would seem that the epileptic seizure is a magic talisman in more than one direction. It reduces the sting of the affective stress which springs the epileptic reaction. Be it fit or explosive temper, it carries off the keenness of the epileptic initiation of helping himself and obliterates the teachings formerly given him.

The foregoing hastily sketched methods of psychologic training for epileptics is universally applicable to all essential epilepties. In the severer states if the epileptic has mental content in his automatisms, by free association or conscious directed inquiry at the interval period this content can be used as an instance for applying the proper mental vaccine. The material, as before stated, is just as much a part of the precipitating cause of his mental indigestion as the data obtained in psychogenic deliria. In brief, nothing is lost in effort that increases the patient's insight into the instances of the mishandling of his instinctive life. One needs to bear constantly in mind that the physician is dealing with an enormously sensitive individual and that any method of explanatory talk is bound to be painful and, oftentimes, when it is carried too far or too fast, actually produces attacks by its very stressfulness. Perhaps preparatory talks upon character problems of everyday life may first be undertaken to advantage. The inclusion of a large group in the patient's specific problem of defect removes the sting of a direct personal indictment. Judicious praise of the good traits may begin and end an interview. Sufficient experience has now been obtained to show that improvement in the individual epileptic is

demonstrated in the non-recurrence of the conscious or unconscious conflict, which latter is uncapped in the automatism. If the defect crops up time and again, it unfortunately shows how deeply the instinctive defect is and the relative hopelessness of a cure. Even then one should not be deterred in following up a modified plan of the same sort of autognosis to ameliorate or retard the deterioration. Even when analytic teaching is not done directly, one may apply it by indirection in the specific daily duties of the epileptic's life. One may thus expand the egoistic outlet of interest and teach by concrete methods the proper objectivation of the epileptic's insatiable desire for power and dominance over reality. His very baffled rebuke shown by the attack as a result of a too intensive striving may serve as adjustment talks to his continued betterment.

Can we incorporate these new principles in the public institutional life? I think so if one will but consider an extra expansion of the sociological aspect of the nursing care. The nursing staffs ought to have a continued study of conduct and behavioristic psychology and its application to their charges. The nursing feature of epilepsy has less of the bedside character than the insane, and it ought to be very easy to instruct them to this new social and personal adaptation method. Less attention might be paid to the accurate analysis of the convulsion and more to the stress and conflict of the epileptic's life. More neuropsychiatric workers might be employed in whose activities as assistants to the physician a proper lay support of the more complicated teachings and analyses would be afforded.

We may conclude that the present modern trend in a specific training of the epileptic individual begins in a careful analysis of the instinctive fault in each case. By conscious analysis of his daily conflicts and those that specifically seem to precede his seizure episodes, as well as those conflicts and strivings that appear in the automatism, one gains a definite point of attack to increase the patient's insight. Teaching an epileptic his essential faults and the means for overcoming them is the continued plan that promises much for the future. This principle incorporated into the present mental and physical regimen, already carried out so admirably in many special sanatoria and colonies for epileptics, gives us more precise methods of attacking our great problem, the healthful alteration of the basic fault of the epileptic constitution. Unfortunately the method throws an enormous task upon all having to do with epileptic individuals; but can we afford to neglect our new visions and opportunities?

A PLEA FOR THE EARLY DIAGNOSIS OF EPILEPSY.*

BY EDWARD A. TRACY, M.D., BOSTON,

School Physician, Boston Public Schools; in Charge of Clinic for Nervous and Epileptic Children, Forsyth Dental Infirmary, Boston.

GENUINE epilepsy is a progressive disease. It often begins with symptoms that while noticeable, yet are so brief-lasting in character that they are not recognized at their true value, for they are the index of the presence of one of the most appalling diseases that afflict humanity. The chronic epileptic is always in proximate danger of injury, or accidental death, and therefore the source of incessant anxiety to relatives.

The beginning of epilepsy is frequently associated with vertigos, sudden pallors, fainting spells, and "absences" (brief lapses of consciousness in which the child stares for an instant. In an incipient epilepsy, one or more of these symptoms may be present for a year or more, and, with periods of irritability, may be the only abnormal manifestations noticed in the child. Suddenly a convulsion occurs, to be repeated at intervals. So plain then is the diagnosis of epilepsy that "He who runs may read": the incipient stage of the disease has ceased, the chronic stage is entered upon. The progress of the disease continues, for a majority of epileptics become dements. The brain in the beginning is but slightly or not at all touched, but as the disease progresses into dementia, the brain degeneration becomes marked. The hoplessness of curing advanced epilepsy with the brain damaged as in dementia, is based on this involvement. I do not say that treatment in chronic epilepsy before the stage of dementia is hopeless. Much can be done and is done by medication and diet to enable many chronic epileptics to live useful lives. Science undoubtedly in the future will teach more about the faulty metabolism that plays so large a part in the production of the periodical attacks of convulsions characteristic

* Address made to the nurses of the Boston public schools, at their meeting, Sept. 3, 1919.

of the chronic stage of the disease. It is not too much to expect that the metabolic toxins of the disease in time will be identified and a neutralizer for them found. This means that a brilliant place in epileptology awaits the research worker in metabolism, whose work, when done, will make the treatment of chronic epilepsy truly scientific, and not the groping thing it is.

For incipient epilepsy, science offers much more than hope, since research work has uncovered facts that indicate the essential cause of the disease to be an over-irritability, a hypertonia of the sympathetic nerve fibres, that treated early can be overcome by drug action. Research work before published* has shown that genuine epilepsy is marked by disease of the sympathetic nerve fibres. The diseased condition of these fibres is manifested by the abnormal sympathetic reflexes and chronic vasoconstriction spots found in epileptics. These diseased sympathetic manifestations in living epileptics are explainable by the diseased condition of the sympathetics and ganglia found by Echeverria in epileptics after death. The objective signs that have been discovered in epileptics, the abnormal sympathetic reactions and chronic vasoconstriction spots, phenomena that can be seen, measured, and photographed, are too important to be further ignored, since they serve in the diagnosis of the disease.

In incipient epilepsy there has been found, as before stated, a hypertonia of sympathetic nerve fibres. By hypertonia is meant a true over-irritability of the fibres, shown by the sympathetic reflexes being more intense and appearing quicker than in the normal individual. The hypertonia that is manifested by the intensity in color of the vasoconstriction reflex (the white streak on the skin which follows stroking with the vasomotor tester) there is no measure for. Appreciation of the degree of color intensity comes from observation and practice in making the tests. But the hypertonia that manifests itself by the abnormal quickness with which the reaction appears, is readily measured with the aid of a stop-watch.

The hypertonia found in incipient epilepsy prompted the query, could the hypertonia present in these cases be overcome by drug action, and if so, with what result? The drug required to overcome an overactivity of sympathetic fibres should be, evidently, a sympathetic paralysant. The only such drug I learned of in my readings is ergotoxin phosphate, found, by Elliot, the English physiologist, to be a sympathetic paralysant in animals. I imported a small quantity of this drug, made a very dilute solution of it in water, and injected a few drops of the solution into my arm. The reflex vasoconstriction reactions produced near the site of injection came slower than before the injection. Control injection of plain water was negative. I therefore concluded that ergotoxin phosphate is a sympathetic paralysant in man. At this period I had been familiar with a drug reported by Dr. R. E. Waterhouse to be curative in some cases of epilepsy—the drug oenanthe crocata. I injected a weak solution of this drug into my arm and found it slowed the sympathetic reaction in a similar manner to ergotoxin phosphate. The conclusion followed that oenanthe is a sympathetic paralysant. The oenanthe preparation being a tincture, and as alcohol is a nerve irritant, I asked Prof. John Uri Lloyd if a preparation of the drug without alcohol could be prepared. He kindly prepared and supplied me with colloidal oenanthe, alcohol free, and this preparation I have used in the treatment of epilepsy. In incipient epilepsy it has proved curative.

Just as the stream near its source can be controlled, while further on, from various causes, it has become the impetuous torrent that defies all the powers of man—so epilepsy in its incipiency, when the current of nerve action is but slightly awry, happily yields to treatment which restores the current to its normal bounds, while later in the progress of the disease the pathologic stream of nerve force increases so that man is powerless against it. For, since Aesculapius, physicians have witnessed the manifestations of this force in convulsions, without being able to stay them.

Facts carefully observed showing the presence of hypertonia of sympathetic fibres in incipient epilepsy and the disappearance of this hypertonia together with the associated symptoms of vertigo, irritable spells, dizzy headaches, and fainting spells following the use of oenanthe (which experiment shows to be a sympathetic paralysant) are the reasons for this plea for the early diagnosis of epilepsy. For when the disease is allowed to progress we have not alone diseased sympathetic fibres, but

* BOSTON MEDICAL AND SURGICAL JOURNAL, Vol. clxxviii, Nos. 23, 24, 25, and 26.

a secondary hyperirritability of cortical cells (hence the convulsions) and in place of contending with the stream at its beginning, we are confronted with a very torrent of pathologic nerve energy that to science is as yet unmastered.

Having discussed somewhat the work upon which this plea for the early diagnosis of epilepsy is based, a brief consideration of the means taken to render it effective will be in order. The Clinic for Nervous and Epileptic Children was established at the Forsyth Dental Infirmary, at the request of Dr. Devine, our esteemed Director of Medical Inspection of the Boston Public Schools. This location for the Clinic was sought because it was thought its location where other duties brought you, would lessen the work attached to the investigation of the epilepsy cases in the schools. These cases, as you know, are to be brought to the Clinic (Saturdays, 9 to 10 o'clock) so that they can be diagnosed for the medical inspection records. In regard to the discovery of the cases of incipient epilepsy now in the schools unrecognized, it is you (whose duties bring you in contact with the children, parents, and teachers) who have the greatest opportunity for service. Bear ever in mind, therefore (and let parents and teachers know the fact), that incipient epilepsy manifests itself by vertigo (dizziness), pallor, fainting spells, and brief lapses of consciousness. Children with any of these symptoms ought to be examined for the objective signs of epilepsy. If these are found present, careful treatment with colloidal oenanthe is indicated.

In conclusion, I desire to thank Dr. Devine for the privilege of addressing you on the subject of epilepsy. I am confident that with your coöperation and that of the school teachers, we school physicians will make progress in the work that has been undertaken—the tabulation of the cases of epilepsy in the schools.

Original Articles.

PROSTATIC OBSTRUCTION.*

By Arthur H. Crosbie, M.D., Boston.

In this paper I shall not endeavor to follow the long years of groping in the dark for a safe method of relieving prostatic obstruction. The history of these dark days has been admirably covered in a recent paper by Dr. H. G. Bugbee.

* Read before the Springfield Academy of Medicine, May 11, 1920.

During the past fifteen years there has been a very marked decrease in the mortality of prostatectomy in the hands of the expert. In this paper I shall endeavor to show some of the reasons why this decrease has taken place. It is not, as many well believe, because we have become so much more proficient in the technique of the operation. From a surgical standpoint prostatectomy is not technically extremely difficult. The real reason for the lowered mortality lies in the more intelligent preoperative and postoperative care. In this care there is one thing that stands out preëminent and that is renal insufficiency, and renal insufficiency is the keynote of my paper tonight.

Let me explain what I mean by renal insufficiency. I refer to the condition in which the kidneys may not be organically diseased, but which from reason, usually obstruction to the outflow of urine, have become embarrassed and cease to functionate or are much retarded.

A typical extreme example of this is seen in a person with both ureters tied off or with calculous anuria. The symptom complex arising here is identical with the condition that we have to deal with in varying degrees in handling cases of prostatic obstruction. The severe type we sometimes speak of as surgical uremia. This condition differs very markedly from ordinary uremia that comes from nephritis. There is no great rise in blood pressure and there is no evidence of oedema unless there is some accompanying disease such as decompensated heart or nephritis. The outstanding features of renal insufficiency are: (1) dry skin, (2) dry and coated tongue, (3) flatulency, soft distention, in extreme cases amounting to almost complete paralysis of the bowels, (4) digestive disturbance, loss of appetite, and sometimes nausea and vomiting. (5) sluggish mental condition, drowsiness, mild delirium, and in the late stages complete coma. Perhaps I can best describe the symptoms by referring to a case of calculous anuria I had the opportunity to observe several years ago. The patient, a man of forty, entered the hospital complaining that he had been unable to pass his water for two days. He had no desire to, but felt that something must be wrong. The man had no appearance of being sick. He had good color, temperature was normal, pulse not elevated, blood pressure not elevated, there was considerable soft distention of the abdomen, the tongue was rather dry, but not coated. There was no urine in the blad-

der. The next day the patient's condition was about the same. By some mistake an erroneous record of forty-five ounces of urine was placed on the patient's chart, and the visiting surgeon seeing that, and seeing that the patient seemed comfortable, and there was no elevation of pulse or temperature, passed him by. Toward night of this day the patient had some headache, his bowels had moved with enemas, but he was still distended. His tongue was dry and decidedly coated. There was no oedema. The day following, the patient was practically in coma and could be roused only with difficulty. A nephrostomy was done, but the patient never rallied, and died the next day. I do not pretend to report this case fully, but describe it as being typical of renal insufficiency. It may perhaps seem that I have digressed from my subject, but to understand fully what a man has to contend with in dealing with prostatic obstruction a clear understanding of renal insufficiency in all its phases is necessary.

There are, roughly, three types of obstruction to consider: (1) the adenomatous type, the large benign prostate, into which class comes the median lobe type which is so apt to act as a ball valve. In this class there is a marked increase in the glandular elements of the prostate. (2) The fibrous prostate. In this type the prostate is usually small and there is a decrease in the glandular elements and an increase in the fibrous tissue. Occasionally you see a combination of both the adenoma and the fibrous prostate in the same man. The fibrous prostate can obstruct just as completely as the large adenomatous type. (3) Carcinoma of the prostate.

Etiology. Why it is that in a certain per cent. of men who pass fifty years of age the glandular elements of the prostate hypertrophy no one knows. It certainly has nothing to do with the indiscretions of youth, as it is found in every type of man. As to the fibrous kind, I am firmly convinced that in a long standing inflammation of the prostate gland many of the glandular cells become destroyed and are replaced by fibrous tissue, and that predisposes to the formation of the fibrous prostate. I believe, too, that the converse is true; that a man who has had a long standing inflammation of the prostate with resulting destruction of much of the glandular tissue is much less likely to have adenoma of the prostate. As to the cause of carcinoma of the prostate we are still in the dark.

Diagnosis. In examining patients where there is a question of prostatic obstruction it is well to have a regular routine. The first thing I do is to go over the reflexes carefully in order to rule out any lesion of the cord. Anyone who has removed a prostate, in a case where the inability to empty the bladder was due to tabes, will never be caught again. There is one test that I use in doubtful cases, where there is a question of a cord lesion being responsible for the residual, that is of value if properly used. With a cystoscope or a metal catheter in the bladder, I fill the bladder with fluid and then tell the patient to pass it through the instrument. Now, of course, the abdominal muscles will come into play at first and there will be force to the stream. If the inability to empty the bladder is due to a nerve lesion the last ounce or two will run out of the cystoscope without force. If, on the other hand, it is due entirely to obstruction at the bladder outlet all the fluid in the bladder will come out with force, even to the air bubbles in the bladder. As I said before, one must always bear in mind the influence of the abdominal muscles. I have often found this test helpful to use in connection with other tests.

The next thing is to do a general physical examination. In doing the physical examination especial care should be taken to palpate and percuss the bladder region. In many cases of long standing obstruction the chronically overdistended bladder can be felt well above the pubes and often up to the umbilicus. Not infrequently in these cases of extreme overdistention the main symptoms may not be referable to the bladder, but be wholly those of renal insufficiency. I will never forget a patient of Dr. Chute's that I saw some years ago who had no urinary complaint, but looked as though he had a carcinoma of the stomach or some other wasting disease. His symptoms were mostly digestive, with nausea and vomiting. He had a bladder up to the umbilicus, caused by a benign obstructing prostate. He was entirely relieved by suprapubic drainage. A rectal examination is now made to determine in a general way how much hypertrophy of the prostate there is and to discover whether the prostate is elastic and movable. In most cases of malignancy one is led to suspect it by the firmness of the prostate and by the fact that it is fixed. Of course, there are many things that are important to know that cannot be elicited

by rectum. It is impossible to tell how much intravesical enlargement there is. A prostate that feels normal by rectum may have a median lobe that is causing complete obstruction. Information of this sort can be obtained only by means of the cystoscope. Having obtained what information we can by rectum the patient is then asked to pass all the urine he can. The abdomen is then palpated to see if the bladder can still be felt. If the bladder is not palpable and the case does not seem urgent, I put the man on hexamethylenamin grains x, three times a day, and have him return in two or three days. This gives time for careful examination of the urine. I prefer not to pass any instrument to a bladder that may have residual urine, until the patient has been on hexamethylenamin.

At this point it might be well to discuss the advisability of cystoscoping all cases of prostatic obstruction. I extremely disagree with some writers who advocate cystoscoping always before starting the operative procedure. There is a type of man with obstruction that I not only do not believe in cystoscoping, but also believe it unwise even to pass a catheter. This is in the old man with the chronically overdistended bladder, the bladder often remaining as high as the umbilicus, and especially if the urine is clear and uninfected. This man with kidneys embarrassed by long back pressure, although he may seem pretty well, is on the brink of a volcano and it will take very little to upset the equilibrium of his kidneys and bring on renal insufficiency. When the urine is uninfected the kidneys have had no opportunity to build up an immunity. An infection started by instrumentation may travel like wild fire to the kidneys with extremely disastrous results. One should be especially careful if any of the signs of renal insufficiency are present. A man of this type should have suprapubic drainage at once.

After the patient has taken hexamethylenamin for a couple of days we are ready to proceed with further investigation. The first thing to do is to have the patient urinate and then pass a catheter and see how much residual, if any, there is. If the patient is a suitable one for cystoscopic examination we then proceed with that. With the cystoscope in we are able to determine the amount of the intravesical enlargement of the prostate, to make out a median lobe if one is present, observe the anterior commissure, look for tumors and diverticula. It usually is not necessary to catheterize the ureters unless there is something that points to a kidney lesion.

Having completed our examination we are ready to advise the patient regarding operation. In my opinion one should be guided by the amount of residual in advising operation, unless the process suggests malignancy. If the prostate feels malignant operation should be advised, irrespective of the amount of residual urine unless it is so advanced as to be hopeless. Even in some of the advanced cases of carcinoma where the obstruction is great, quite a long period of relief can be given by a partial palliative perineal prostatectomy. In considering the amount of residual I generally put six ounces as the dividing line. In cases with less than six ounces, unless the symptoms of frequency and urgency are very marked, I am willing to wait and observe them from time to time. If the residual is six ounces or more, I feel that operation is advisable, for from then on there is danger of back pressure on the kidneys, which is the real danger in prostatic obstruction.

Having decided upon operation, the next thing is what form of operation shall we advise. Roughly speaking, men with the large benign prostate should be done suprapubically by the two-stage operation and men with the small fibrous prostate and the malignant prostate should be done by perineal route. Most cases with residual urine that are to be operated on by the perineal route should have the bladder put at rest by an inlying catheter for a week or ten days previous to operation. In this way and by forcing fluids the kidneys can be brought to their highest efficiency. In some cases, however, where the residual is large and the back pressure on the kidneys is long standing and the patient shows signs of renal insufficiency, such as dry coated tongue, distention, digestive disturbances, etc., the inlying catheter is not a safe procedure. There is not the slightest question but what the safest and most efficient way to drain the bladder is by suprapubic operation. A catheter may block up and the infection plus back pressure may in a few hours do inestimable damage. With a large tube in the bladder, above the pubes, there is bound to be free drainage. If the tube blocks up the urine will escape around it. When in doubt drain by a suprapubic tube. It is better

to do it at once than to be forced to do so as a secondary procedure. In the grave cases, it is much safer to drain this way, even if a perineal prostatectomy is contemplated later. Having a suprapubic opening in no way contraindicates a secondary perineal operation. The suprapubic opening will heal just as readily as though there were not a perineal incision.

I believe that even cases almost moibund should be given their chance. I have seen a man come into the hospital in coma, almost ready for the undertaker, who has responded quickly to drainage and hypodermoclysis and has later come to prostatectomy. Of course, if you follow this procedure you are bound to have a certain number who will never rally enough for further operation, but you have the satisfaction of knowing that you have given them their chance.

Before proceeding to the operative technique, just a word about one form of suprapubic drainage that is sometimes used, and that is by introducing a catheter suprapubically into the bladder through a trochar. This of course gives good bladder drainage, but you lose the important walling off of the sinus that you get in a free opening. If this method is used much new tissue must be opened when the final operation is done. If sepsis gets started in this it just adds one more handicap for the patients to fight against after prostatectomy, which is just what we want to avoid.

I will describe very briefly the method I use for the preliminary suprapubic drainage. It is always done under local anesthesia and can be done without any great amount of pain, if sufficient care is taken in anesthesia. One-half to one per cent. of novocaine is used. I prefer a 10 c.c. syringe with a long needle. The skin is carefully infiltrated along the line of incision. The needle is then plunged through the fascia and the muscle infiltrated thoroughly. Often in doing this the bladder wall itself can be reached. After the injection it is well to wait about ten minutes for the anesthesia to take full effect. An incision is then made seven or eight cm. long in the median line above the pubes. The incision is carried through the fascia and then the muscle is separated, usually by blunt dissection. Having separated the muscle, one comes to the lower reflexion of the peritoneum over the bladder. This fold of peritoneum is gently pushed up by the gauze dissection. This is apt to cause some pain produced by pressure on the overdistended bladder, but this cannot be avoided. In pushing the peritoneum up care must be taken not to separate the bladder from the pubes. If this is done, there is much greater danger of sepsis. Having exposed the bladder wall, which will be recognized by the large veins and the muscle bundles, two stay sutures are placed side by side in the bladder wall. A knife is then thrust into the bladder between the stay sutures. An opening large enough to admit the forefinger is made. All the urine in the bladder is allowed to escape, no matter how much the bladder is overdistended. With a free opening in the bladder this never does any harm, as it sometimes does in emptying an overdistended bladder by catheter. The finger is introduced gently and the contour of the vesical outlet made out and stones searched for. This investigation is of especial value in cases that have not been cystoscoped. Any stones present can be gently lifted out with stone forceps. A half-inch rubber tube is then inserted into the bladder. This fits snugly in the hole made in the bladder and there is no need of any bladder sutures. A rubber wick is placed below the tube in the prevesicle space and one above the tube. The wound is then closed snug to the tube. The tube is held in place by a linen suture. A right angle glass tube is placed in the rubber tube to facilitate drainage.

During the process of drainage there is ordinarily no need of irrigating the bladder. If the bladder is very foul I pass a small catheter through the suprapubic tube and irrigate gently daily for a few days until the bladder clears up. Sometimes the urine is blood tinged for a while following operation. It is needless to say that the second operation should not be undertaken until this has stopped.

Now that the obstruction has been overcome and the bladder placed at rest, either by suprapubic cystotomy or catheter drainage, we are ready to enter upon the most important part of our task, that of preparing the patient for the final operation. I consider this period of extreme importance. The kidneys have been relieved of the embarrassment of back pressure and our task now is to bring them to the highest function possible. We can take as much time as necessary to do this. Do not hurry, so long as the patient is improving. The first few days after the preliminary cystostomy

are apt to be the most trying, especially in the men with tremendously overdistended bladders and non-infected urine. We must constantly be on the alert for the first signs of renal insufficiency. Kidneys that have been working against back pressure are very prone to lose their balance when the pressure is removed, and are apt to shut down completely. How are we going to fight this? It must be ruled with an iron hand. Every phase of renal insufficiency must be borne in mind and combated. In the first place the intake of fluid must be forced to the limit. This is done by mouth, by rectum, and by hypodermoclysis. I am never satisfied until the patient is excreting from 80 to 100 ounces in twenty-four hours. If the kidneys begin to shut down I give 1000 c.c. of fluid by hypodermoclysis three times a day until a satisfactory output is reached. The only contraindication to hypodermoclysis is the appearance of oedema.

The distention must be attacked by catharsis by mouth and by enemata. As many enemas a day must be used as are necessary to keep the distention down. Do not be satisfied by ordering one and letting it go at that.

The more marked the renal insufficiency is, the more drowsy will the patient be and loath to leave his bed. This must be overcome by getting the man out of bed, preferably into a wheel chair and out of doors. The fresh outdoor air is a great tonic for these old men. If the patient's condition makes it impossible to get him into a wheel chair, have him propped up in bed and have the bed moved out of doors for several hours each day. As far as the cystotomy wound is concerned, there is no harm in a patient being out of bed, and even on his feet, a day or two after operation. If a man is addicted to the use of alcohol or tobacco see that he is allowed the solace of these. I will never forget one man whose renal insufficiency was exceedingly stubborn; he had hiccoughed steadily day and night for five days. I finally asked him if he could think of anything that he would like. He replied that he would like a cigarette and a bottle of beer. He was provided with these and immediately began to pick up and we had no further trouble with him.

The decision as to when to remove the prostate is not a question of time, but wholly of the patient's condition. Wait months, if necessary, to bring the man into a satisfactory condition. If a cystostomy has been done never go ahead with the second operation for a week or ten days, as this gives time for a complete walling off of the prevesical space and aids rapid healing after operation.

The function test is an aid, but must not be depended upon alone as to when to operate. Be guided by his general condition. The tongue must be clean and moist, the kidneys must be excreting freely eighty to one hundred ounces in twenty-four hours; he should be eating well and sleeping well; the tendency to distention must be overcome, and the mental state must be good. So long as a man is gaining daily, hold off. Patients naturally desire to hurry and get the thing over with, but do not be influenced to operate until you are satisfied that nothing more can be gained by waiting.

The question of anesthesia for the final operation is an important thing. I am very much averse to ether as it checks the excretion of the urine temporarily and also upsets the stomach so that the intake of water is much decreased for a good many hours. Either spinal anesthesia or gas oxygen should be used. Personally, I much favor spinal anesthesia. I find it satisfactory for both types of operation. Even in the exaggerated lithotomy position required in the perineal operation I have had no trouble with it.

I had not meant to say much about the operative procedure, but when only last year a surgeon recommended a large suprapubic incision, with free exposure to the bladder, in order to suture bleeding vessels in the prostatic capsule, I feel it is time to protest. The bleeding can be entirely checked in other ways and still retain the great advantage of walling off that we have gained by suprapubic drainage.

In doing the suprapubic operation the left leg is slightly flexed and the fore and middle fingers of the left hand are inserted into the rectum, thus elevating the prostate. The forefinger of the right hand passes through the suprapubic opening into the bladder and enters the internal meatus. The finger then breaks through the mucous membrane of the urethra and prostatic capsule and the prostate is shelled out piece by piece, the fingers of the two hands working against each other. The pieces are lifted out with stone forceps as fast as they are freed. As soon as the prostate is all out a strip of gauze is packed into the prostatic cavity against the fingers of

the left hand, which are still in the rectum. Pressure is kept on this gauze for a few minutes and then removed. If there is still bleeding, the process is repeated. This brings out one advantage of spinal anesthesia over general anesthesia; one can take his time and does not need to hurry to get the patient out from under anesthesia. I have found, too, that due to the lowered blood pressure, the bleeding is never so profuse as it is under gas and oxygen. If bleeding persists, a catheter is passed through the urethra to the bladder and then a strip of gauze is packed tightly into the prostatic pouch around the catheter and the end of the strip brought out through the wound. If this packing is well done it will control the bleeding unless there is something like hemophilia or jaundice to prevent the blood clotting. In such cases it is necessary to keep up the bimanual pressure until the bleeding has stopped absolutely. In most cases the bleeding is easily stopped and a catheter is then passed to the bladder. A linen suture is placed through the eye of the catheter and it is dropped back to the desired position in the bladder and is anchored there by fixing the linen suture to the skin. This suture is tied in a bow knot so that in the future the position of the catheter can easily be changed. After this is done a half-inch rubber tube, similar to the one used in the preliminary operation, is inserted into the bladder. For closing the incision one or two silk worm gut sutures as a rule, is enough, as there has been no new cutting. No irrigation is used, as this merely increases the bleeding. I mentioned only the packing with gauze to stop bleeding because that is the method I use and like best. The Hagner bag is satisfactory, but is more cumbersome and more difficult to manage. I really feel more at ease with a case well packed than with the Hagner bag in. As a matter of fact, most cases need nothing more than pressure with gauze for a few minutes and when that is removed the bleeding has almost entirely stopped. It is usually merely a venous ooze that is easily controlled.

The perineal operation is decidedly more technical, but for the proper cases is a most satisfactory one. The patient must be in the exaggerated lithotomy position, which can be accomplished only by using some such device as the Halsted board. I will not go into details of this operation as no man should be rash enough to attempt it from a mere description. It is important to look out for certain things in this operation. One must bear in mind at all stages that he is working in close proximity to the rectum and great care must be exercised not to cut through its mucous membrane. The destroying of the external sphincter is a thing that is apt to happen in the hands of a novice. I think this sometimes happens in the desire to keep as far as possible from the rectum. The urethra must be opened at the tip of the prostate and not outside of this point. After removing the prostate never fail to explore the bladder outlet with the finger to feel for a median lobe that has escaped and also for stones. I have seen a median lobe entirely overlooked in a perineal operation. I like to have a pair of small tubes for drainage. They pass through the perineal wound into the bladder. This is in addition to the catheter, which passes the full length of the urethra to the bladder.

The after care of cases of prostatectomy is much the same as the care preceding operation. Renal insufficiency must be fought from the start. If you have been forced to give ether always give a liter of salt solution by hypodermoclysis at once to take the place of the water that will not be drunk for the next few hours. This should be done, no matter how well the patient seems. It is so much easier to prevent renal insufficiency than it is to fight it after it arrives, that you must anticipate it and keep a few jumps ahead of it.

The actual care of the operative wound is not difficult. One is more apt to do too much than too little. Following the suprapubic operation, if the wound has been packed, this packing can safely be removed on the second or third day and the bladder gently irrigated with warm boracic acid daily. If a suprapubic tube has been used this is removed as soon as the urine ceases to be bloody, which is generally on the second or third day. After removing the suprapubic tube no attempt is made at first to close the opening. The urine is allowed to drain either through the catheter or through the incision, whichever way it goes easiest. It does no harm to have the urine drain freely into the dressing, provided these are changed often. Much harm can be done in a prolonged effort to get the catheter into a position to drain best. I have seen one of these old men

completely exhausted after a half hour has been spent adjusting the catheter. If a catheter does not drain well I make one or two attempts to get it into a better position and then stop. Sometimes after a few days a feeble old man will be much annoyed by the irritation of the catheter. Not infrequently if the patient is not doing well with the catheter in, I take it out for a few days and get him up out of bed unhampered by any harness. This little change will sometimes make him more comfortable and start him on the road to recovery. There is plenty of time to close the suprapubic wound after the immediate effect of the operation has passed. All of these men, whether suprapubic or perineal, should be up and out in the fresh air as soon as possible. After the operation, of course, it is difficult to determine just how much urine is being excreted. One has to watch closely for signs of renal insufficiency. If there is any doubt as to the amount excreted being satisfactory, hypodermoclysis should be used freely. It can do no harm and its omission may do much harm.

A complication that is very apt to come after prostatectomy of any sort is epididymitis. This is very annoying, but is seldom serious. It is generally ushered in by chill and rise of temperature, often before anything can be felt locally. The catheter should be removed at once and kept out until the process has subsided. Elevation of the testicles and an ice bag gives the greatest amount of relief. If the pain is very severe morphia may have to be resorted to. However, in handling cases of prostatic obstruction I try to avoid morphia as much as possible. The epididymitis usually quiets down in a few days. Occasionally an abscess forms that has to be opened under local anesthesia. The best way to prevent epididymitis is to keep the testicles elevated at all times.

At the end of ten days or two weeks the wound, whether perineal or suprapubic, has usually closed so that the man can void naturally. Some cases take longer, but if the obstruction has been entirely removed, the wound is bound to close. If the suprapubic wound has been widely opened, as some operators recommend, the healing will be much slower than it would be if the prostate had been removed through the already walled off sinus.

Before allowing the patient to leave the hospital it is well to pass sounds once to make sure there is a good free opening at the bladder outlet. A catheter should also be passed after voiding to make sure that the bladder is emptying itself. In a man who has had a chronically overdistended bladder, the bladder may not at once regain its tone and becomes less each day and finally disappears if the obstruction is gone. To summarize briefly:

1. Make absolutely sure that you are dealing with obstruction at the bladder outlet.
2. Having made sure of that, drain the bladder either by catheter or by suprapubic tube, until the kidneys have reached their highest possible efficiency. Fight renal insufficiency.
3. Remove the obstruction.
4. Fight renal insufficiency.

ENLARGED MESENTERIC LYMPH NODES

By Howard M. Clute, M.D., Boston.

The two cases of enlarged mesenteric nodes which form the basis of this report are from the practice of Dr. Frank H. Lahey, who has kindly permitted me to use them.

It is the experience of everyone who has operated upon children's abdomens to have found a few enlarged mesenteric nodes. Autopsy records show that enlarged mesenteric nodes are very common in tubercular children. Professor G. S. Woodhead found tubercular mesenteric nodes in 78.7% of his autopsies on tubercular children and in 11% these were the only lesions present. Dr. Coleman found them present in 66% of his tubercular autopsies, and Dr. Branson found this lesion alone present in 22% of his autopsies in his study of abdominal tuberculosis. Dr. Frank Berry of the Pathology Department of the Boston City Hospital informs me that enlarged mesenteric glands are extremely common in autopsies on children. They are seen much less regularly in autopsies on adults.

Human beings have two chief portals for the entry of infection to the body. The first is the respiratory tract and the second the alimentary canal. Infections in childhood are said to enter more often by the alimentary tract than through the respiratory channels, while in adults the reverse is found. This being so, it is not surprising to find the mesenteric nodes frequently enlarged in children, since they form the first barrier to the advance of an infection arising in the intestines.

That these lymph nodes may be the primary source of infection is believed by Corner and Babes, who were able to produce a primary tubercular lymphadenitis with no accompanying injury to the intestinal mucosa. In some of their cases, however, the lymphatics leading to the glands showed tubercular involvement.

The enlargement of these glands is generally of tubercular origin. A. Y. Jones has reported cases, however, in which no evidence of tuberculosis was found. In our two cases the macroscopic picture was that of tuberculosis and in the majority of instances this will be found to be the case.

Some of the enlarged glands in children are thought by many to be caused by the bovine bacillus of tuberculosis. Park estimates that 10% of tuberculosis in children under five years is of bovine origin. Fortunately, in the majority of cases of this infection, the local resistance offered by the nodes is sufficient to prevent the further incursion of the disease.

In adults, enlarged mesenteric glands are usually secondary to infection in the region of the appendix, gall bladder, or stomach, and are much less often tubercular.

Mesenteric lymph nodes react to infection in a manner exactly similar to lymph nodes in other situations in the body. With intestinal tract infections, there may be an acute hyperplastic inflammation with hyperemia, hemorrhage, and proliferation of the cells of the node. An acute exudative or suppurative inflammation is rare. Suppuration in the mesenteric nodes is almost unknown. A chronic inflammation with an increase in the connective tissue formation and a decrease in the lymphoid cells is much more often seen. In children the infection is usually tubercular in origin. In the early stages the nodes are soft and swollen and may be sprinkled with small tubercles. Later these tubercles coalesce and a cheesy degeneration occurs. Following this there may be a fibrous tissue increase with or without a deposit of calcium salts in the node. Nodes that have been the seat of a moderate infection may be quiet for some time and then undergo any of the above changes. There may be a peripheral hyperplastic inflammation and a group of nodes will thereby become glued together in a thick mass.

Enlarged mesenteric nodes may be situated anywhere in the mesentery. The ileocecal group, however, are most commonly involved. This fact Corner believes to be due to three factors: (1) The cecum is the next place after the stomach for food stasis. (2) There are many more bacteria here than elsewhere in the gastrointestinal tract. (3) The appendix is a frequent site of infection. Maylard says: "Because the ileocecal segment of gut is most often ulcerated, the ileocecal glands are most often enlarged."

Adhesions of gut or omentum to the glands may result in an obstruction to the gut. Thrombosis of the inferior mesenteric artery and vein has resulted from encroachment upon them of a single enlarged mesenteric gland. Calcification of these nodes occurs now and then, and may give rise to symptoms. Rupture, or extension of a caseous node into the peritoneal cavity may result in a general tubercular peritonitis. A generalized miliary tuberculosis may follow the rupture into a blood vessel of caseous nodes.

The symptoms of enlarged mesenteric glands vary with the pathological condition of the glands, with the age of the patient, and with the relation of other organs to the glands involved. In both children and adults they are one of the causes of abdominal pain which may give no hint as to its origin before an exploratory laparotomy is done. In the early stages of the disease in children, there is often a history remarkable for its vagueness, with little pointing to the real source of trouble. The child is anemic and listless, with loss of weight and appetite. Digestive disturbances like diarrhea or constipation are common. In one of Dr. Lahey's cases there was a history of obstinate constipation of long standing.

With an increase in the inflammatory process in the gland there are concomitant attacks of abdominal pain. The location of this pain shifts about noticeably, probably because of the ease with which the node moves with the mesentery. Fever with late vomiting may occur. The muscles over the nodes may be moderately rigid. When, as is frequently the case, the ileocecal glands are the ones involved, the picture may be that of a moderately acute inflammation of the appendix. Palpation of the enlarged ileocecal glands may add to the similarity of the case to appendicitis. The child is not markedly prostrated, however, and would not desire to stay in bed were it not for the pain.

If the pathological condition has advanced to abscess formation, all the symptoms will be more marked and more definitely localized. A

tender mass, not movable, may be found in the abdomen, and there will be moderate muscle spasm over it. If a secondary pyogenic infection has occurred, a marked daily temperature rise may follow. In some of these cases a diagnosis of possible typhoid fever has been made from the daily fever, the prostration, diarrhea, and abdominal distention.

If the pathology has advanced to the stage of rupture of a caseous gland, the child may first be seen with the symptoms of a generalized peritonitis, as in Guthries' case quoted by Maylard.

Mesenteric glands of long standing may become calcified. In this condition, their symptoms plus their x-ray picture may lead to a diagnosis of renal or ureteral stone. The true diagnosis may be impossible until pyelography demonstrates the calcification to be outside the pelvis or ureter.

Late in the course of mesenteric gland pathology may occur acute abdominal lesions from accidents associated with the nodes. Thus acute intestinal obstruction may result from the adhesion of gut or omentum to a gland, as reported by Jones in three of his cases. Or there may occur an acute mesenteric thrombosis, as in Murray's case, in which the proximity of acutely inflamed mesenteric glands to the inferior mesenteric artery and vein resulted in a thrombus formation in both artery and vein with gangrene of the gut.

Branson writes that any movable tumor in the abdomen of a child, which is not fecal, is tubercular mesenteric nodes. The diagnosis will frequently not be made, however, until the case is sufficiently advanced to demand an exploratory laparotomy.

Recurrent attacks of abdominal pain in children, with fever, little or no vomiting, constipation, and loss of weight, should remind one of the possibility of tubercular mesenteric nodes.

The nodes may be palpated sometimes by combined rectal and abdominal examination. In each of Dr. Lahey's cases, the glands were readily palpable and moderately mobile. There is no leucocytosis with these cases as a rule, unless there is a secondary pyogenic infection.

The pain is rarely constant in its location, but shifts from point to point, so that an upper abdominal disease may be suspected one day and appendicitis the next. However, relatively few of these patients present themselves as acute surgical cases. They are more apt to go for months under medical treatment, with indifferent results, and only become surgical when it is evident that some more radical procedure is necessary.

Adequately treated, the prognosis in enlarged mesenteric nodes is good. No deaths and no recurrence of symptoms after the removal of the nodes have occurred in Dr. Lahey's two cases. Other surgeons report similar results. Fatal cases have occurred when the node was ruptured during its removal. Undoubtedly tubercular mesenteric nodes, untreated, offer a potential source for the further spread of the tubercular infection.

The principles governing the treatment of this condition are, in brief, the removal of the focus of disease and the care of the general health of the patient postoperatively. Conservative hygienic treatment may well be tried first in cases of this nature. Undoubtedly many people have, at some time, tuberculosis of the mesenteric glands which clears up with no appreciable trouble. This may happen in an acute case of the disease.

Conservative measures failing, however, operative removal is indicated. The difficulties encountered may vary from the mere shelling of the enlarged node from its mesenteric bed to the resection of gland, gut, and mesentery.

In acute obstructions from adhesions to a node, it may be wise to do no more than relieve the obstruction and not attempt to remove the enlarged gland. Drainage after the removal of the nodes is unnecessary, and because of the danger of leaving a tuberculous sinus, is better omitted.

CASE REPORTS.

Case 1. "J. T." Referred by Dr. C. G. Merrill, Marlboro. Age, 2½ years. Female. Breast fed one year. F. H.—Father died with pulmonary tuberculosis when baby was one year old. Remainder of family history negative. P. H.—Always a thin and delicate baby with a poor appetite. Adenoids were removed a year ago. Was quite ill with measles early this year. Since a few weeks old has had frequent attacks of abdominal pain occurring mostly at night. Never vomited. No fever. Bowels regular, as a rule. P. I.—A sudden attack of abdominal pain more severe than usual awoke the child. This pain persisted for three or four days and was accompanied by diarrhea. No vomiting. No fever. P. E.—In general, negative. The abdomen showed a movable mass just below the right hypochondrium. This mass

was chiefly movable from side to side and was about four centimeters in diameter. It was hard, nodular, and not particularly tender.

June, 1919. Ether and operation by Dr. Frank H. Lahey. Right rectus incision. The ileum was found adherent to the transverse colon near the hepatic flexure and the ascending colon almost completely obstructed. There was a caseous lymph node in the ileocecal mesentery which was the basis for the condition. The ascending colon and part of the ileum with their mesenteries and the gland were resected and an end to side anastomosis between ileum and transverse colon performed. Macroscopic sections of the gland showed it to be the seat of tubercular infection.

A week after operation symptoms of intestinal obstruction appeared. The child's abdomen was again opened, and an adhesion at the site of operation freed where it was obstructing the gut. Convalescence thereafter was uneventful.

May, 1920. The child has gained steadily in weight and strength. Eats, sleeps, and feels well. Has had one attack of abdominal pain with marked constipation since her operation. Physical examination shows nothing remarkable.

CASE 2. "V. M." Referred by Dr. H. A. Walker. Breast fed 16 months. F. H.—One paternal aunt and cousin died with pulmonary tuberculosis, but the child was never exposed to their infection. P. H.—Has been very constipated almost from birth. Had occasional attacks of abdominal pain with vomiting when quite young. Measles at four. For the past three or four years has had recurrent attacks of vague abdominal pain varying in severity. This pain usually started near the umbilicus and would shift to different areas from there. Sometimes has a little fever with the pain. Mother has long thought she felt lumps in the child's abdomen. No vomiting. P. I.—An unusually severe attack of pain began four days ago, centering chiefly about the umbilicus. Some vomiting. Temperature rose to 101.5°. Bowels moved with enemata. P. E.—A slight, poorly nourished girl with moderate anemia. General examination negative. Abdomen flat and soft. Just to the right and below the umbilicus is a mass visible and palpable. Movable in a radius of four or five centimeters. Some tenderness and muscle spasm over the mass.

Ether and operation, Dr. F. H. Lahey. Low right rectus incision. Appendix appears normal. In the mesentery at the ileocecal junction is a small mass of enlarged glands. These were dissected from the mesentery and removed. Macroscopic action showed the nodes to be tubercular. The mesentery was sutured, the appendix removed, and the abdomen closed. The convalescence was uneventful.

April, 1920. Now seven months after her operation, the child is in excellent condition, with no further difficulty than an occasional attack of constipation.

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TREATMENT OF VASCULAR NAEVI WITH RADIUM.

BY DOUGLASS W. MONTGOMERY, M.D., SAN FRANCISCO,
AND
GEORGE D. CULVER, M.D., SAN FRANCISCO.

IT was early discovered in the use of radium that it exerted an especially beneficial influence on certain types of naevi. This influence is most marked on the large, tuberous, vascular ones, in which the growth, if it is progressive, is not alone stopped, but the tumor also shrinks in size, and the startling red color disappears.

As in the use of a powerful agent like radium, the technique is of the first importance and as the greatest help we ourselves got during our novitiate was from the admirable reports issued by Pinch of the Radium Institute of London, we, in the hope of being similarly helpful to our colleagues, shall give our procedures.

On March 21, 1918, a baby girl of ten months was referred to us for a large, cavernous naevus 1.50 cm. in diameter and .50 cm. high, situated on the inner surface of the left upper arm. At birth it was a small red spot and had grown steadily ever since, and with especial acceleration within the past two months, so that either operation or control was felt to be imperative. Its surface was covered with vascular stellate red patches, and its substance felt like a loose bag.

We applied seventy-five mgms. of radium on the tumor for three and one-half hours, which not alone stopped the growth of the tumor, but

secured a decided retraction. We, however, committed two mistakes. We screened the radium tubes employed with the silver and brass capsules alone, sent us for this purpose by the radium company from which we bought the radium. The capsules had become radioactive and, therefore, caustic, and we got a burn. We may here remark that where we did not burn the skin we have not got telangiectases from the radium. We now usually employ new coverings of lead, or keep the capsules, when not in use, apart from the radium. We also employed in this case one plaque which we screened with lead, but too lightly, and we did not intervene any cellulose screen either of wood, felt, paper, or gauze, which we now always employ. After the first burn, we avoided this accident in the following applications.

After five treatments, scattered through a period of eighteen months, the mother, in a letter recently received, says that the arm is almost like the other, except for a few superficial dilated capillaries, due, as already mentioned, to the imperfect technique.

A female infant, ten months of age, was brought to us February 12, 1919, with a very large naevus of the left cheek. There were no symptoms when she was born. When two weeks old, the lesion was the size of a mosquito bite, and had steadily grown till when we saw it, at ten months of age, it was a raised, deep red, cushion-like naevus with a rolled border and a sunken center. It measured three cm. in diameter and seven mm. in height, and caused the cheek to project out like a truncated cone. The center was, as before mentioned, sunken, and was cicatricial, the result of ulceration which had begun three months before, and had healed about four days before we saw the child. These spontaneous ulcerations occasionally occur on these very exuberant naevi and may cause alarming hemorrhages. When ulcerated, they may be readily mistaken for malignant disease. As a matter of fact, vascular naevi rarely become malignant; we have never seen one do so.

There was no evidence of naevus formation in the mucous membrane of the cheek within the month.

We applied a strong plaque of radium, 24.23 mgms., over the center, screened with lead 1.50 m.m., wood 2.00 mm., and one thickness of adhesive plaster, and on each side a 25 mgm. tube enclosed in its silver and brass tubes and screened besides with 1 mm. of lead, 2 mm. of wood, and one thickness of adhesive plaster. This was retained in place for five hours.

On March 27, a similar treatment was given, but with a less thickness of lead (0.40).

On May 27, 1919, the tumor was so reduced that only one radium tube could be used over it. This tube contained 25 mgms. of radium element and was enclosed in its silver capsule. Besides it was screened with lead 1.00 mm., wood 2 mm., and was retained in position for five hours.

On November 5, 1919, a similar radiation was given and the tumor was so reduced in size that we think that no further radiation will be given for a very long time, if at all.

A girl baby of eighteen months was referred to us July 9, 1919, for a bulbous, violet naevus occupying the whole nose tip. As above mentioned, these tuberous ones are particularly amenable to radium treatment, and the parents were told that marked improvement could be expected. From the nature of these cases, however, the skin never can become exactly like normal skin. The hyperplastic naevus blood vessels shrink away but the cutaneous texture never entirely resembles the beautiful, soft texture of the normal skin. The improvement is, however, striking, and by far and away better than under any other treatment.

A very strong radium plaque was employed and a very thick screen; the plaque was the size of a ten-cent piece and contained 24.23 mgms. of radium element. The screen was composed of 2 mm. of lead, 2 mm. of wood and 12 thicknesses of gauze, and one thickness of zinc oxide adhesive plaster. This was held in place for two and one-half hours.

On August 27, 1919, she received another treatment with the same plaque, but the lead screen was reduced to 1 mm. The wood and gauze and adhesive plaster, and the time were as in the previous treatment.

On November 4, 1919, another treatment was given with the same plaque. The screen consisted of brass 1.2 mm., wood 2 mm., gauze four thicknesses, sinc oxide adhesive plaster one thickness, and the time was five hours.

On February 26, 1920, another treatment was given with the screening and the time as on the previous treatment, November 4, 1919.

The heavy screening was intended to eliminate the caustic alpha and beta rays, and even some of the coarser gamma rays, and therefore,

was intended to avoid all burning, in which we were successful.

Attention is drawn to the fact that three months elapsed between each treatment. This was to allow time for the complete shrinking to take place which each treatment was capable of producing before the next treatment was begun. This we regard as important, and it may be that, in this case, more treatments may be given if it is surmised that there is still naevus tissue present.

In another case, a baby girl of sixteen months had a walnut sized angioma situated on the left side of the forehead at the hair line. She got a radiation, at first with 75 mgms. of radium, suitably screened, for two and one-half hours on July 17, 1919. Two months afterwards she got a radiation with 25 mgms. of radium for five hours, and again in three months a similar radiation for an equal space of time. The result is excellent.

The flat, red naevus, the naevus flammeus, is not nearly so amenable to treatment with radium as the large, tuberous ones; but still, even they, with care and patience, may be much improved.

With a patient, ten years of age, with such a naevus of the right side of the nose, extending to the inner canthus of the eye, and including the right upper eyelid, the right eyebrow, and extending up on the forehead, and a very small area beneath the right nostril, we employed the electrolytic needle, CO_2 snow, and radium. The best results were later obtained from radium.

THE SCREENING.

As can be seen by reading the above, the screening is of the greatest importance and must necessarily vary with the type of lesion treated, with the concentration of the radium preparation employed, and with the time this preparation is retained in place. One fundamental principle to bear in mind is that it is far better to err on the side of the screening too much. This precaution is especially necessary when a cosmetic result is wished for, as is so frequently the case in naevus.

In the first place there is a difference between screening and shielding. The shield is employed to protect the surrounding tissue. If the lesion is small, a hole for it is punched in a piece of thick lead, say 1 mm. thick. The hole should be a little larger than the lesion. This lead has to have either cellulose (paper, wood or gauze), or rubber between it and the skin to prevent the action of the secondary rays.

The surrounding tissues having been shielded, the screen is placed on the face of the radium applicator and then applied and firmly plastered down with adhesive plaster.

A favorite plaque with us is one made according to recommendations from Dr. Robert Abbe of New York. It is the size of a ten-cent piece. In ordering it from the radium firm from which it was purchased it was requested to include in the plaque all the radium possible in this sized glaze. Our plaque contains nearly 25 mgms.

We screen this with 1 mm. of lead, 2 mm. of wood, 12 thicknesses of gauze and one thickness of the zinc oxide adhesive plaster employed in binding this all together. This may be retained in place for five hours or longer without fear of burning, and the results show that a sufficient radiation goes through this material to act efficiently on the hyperplastic blood vessels of the tumor.

THE SPIDER NAEVUS.

Usually included among the vascular naevi, but not at all in the same pathological class, is the spider naevus. It consists of a bright red, central point, with dilated capillaries radiating out from it. This is not at all amenable to radium treatment as it does not contain any naevus tissue or hyperplastic naevus blood vessels to be acted upon by the gamma rays.

The dilated central point and the radiating capillaries are easily obliterated with the electrolytic needle.

MEDICAL JUDGMENTS.

BY H. W. MARSHALL, M.D., BOSTON.

IDEAS which it is desired to call attention to can be introduced most quickly and conveniently from an actual case.

A middle-aged man fell backward on the ground and nine years later slipped again and sat down heavily. He hurt the lumbar region of his spine moderately at each injury. He recovered completely after the first accident in a few months, and after the second one x-rays of the spine revealed numerous osteoarthritic bony changes, one bony overgrowth being located at insertions of ligaments at the tip of one of the posterior vertebral spinous processes.

Its appearance led one doctor to believe there had been a slight fracture at this point, and he advised insertion of a bone graft into the spine taken from the tibia, but this was not done. A second physician advised hydrotherapeutic baths. There was no appreciable benefit from the first one and no more were taken. A third physician applied a plaster jacket, which became unbearable in a few days and it was removed. A dentist extracted the patient's badly defective teeth, more than twenty in all. Another physician prescribed stomach and rectal lavage, diet regulations, more complete rest for extreme nervous fatigue and irritability, medicines, also a removable back brace which was worn for local support as much as nervous irritability permitted. The patient slowly and completely recovered under the latter treatment in seven months' time.

If the first physician's advice had been accepted, an operation performed, digestive functions regulated, and teeth extracted, there would have been complete recovery undoubtedly and the result, without doubt, would have been attributed mainly to the surgical measures. The last mentioned physician's care shows, however, that an operation was unnecessary in this instance. The dentist can assert yet that removal of the bad infective focus in the mouth was the most important feature which turned the patient's course toward recovery. The dentist's services were insisted on first by the last physician, under whose direction the patient's recovery occurred, and the latter doctor brought together the combination of different measures which promptly turned a progressively downward course into one of recovery with maintenance of steady improvement until health was restored. The immediate effects observed and subsequent course of the patient are sufficiently convincing perhaps to warrant belief that medical care was of undoubted, marked benefit in this instance.

A series of questions can be proposed. Why shouldn't surgeons be encouraged to operate on all such cases provided patients improve under their care? Why shouldn't it have been advisable in the cited case to have had a more complete examination in order to be prepared for future possible emergencies? What harm is there in having members of any of the different medical specialties advise their special methods as long as some improvements follow in patients' conditions? What constitutes the rights of patients in matters of their own treatments? Should they insist on simplest, quickest and least expensive methods? Or should they compromise on a basis that promotes medical science most rapidly, supports the medical profession most comfortably, and will be of maximum benefit to future patients, provided present sufferers derive a little benefit?

These sides to each medical problem exist unavoidably, and with advancement of industrial medicine more emphasis is being laid on simplicity, rapidity, and low costs of treatments for those disabled at present.

It seems to the writer that the medical profession has the task ahead of adding greatly increased judicial activities to its other departments, judicial activities that include revisions of existing medical practices and regulations of medical fees.

The principal harm in letting different specialties expand in unrestrained fashion lies in the danger of decreasing benefits to patients as efforts are made to stretch the scope of each special department unduly for the benefit of practitioners, or medical science, or the welfares of prospective patients in the future. Evidences of distrust already are seen on the part of insurance companies whose interests coincide with those of patients to the extent of desiring quickest, simplest, and least expensive methods. Benefits of numerous expensive surgical operations naturally have been the first to undergo closer scrutiny and most extreme surgical ideas to be condemned. Public opinion will furnish natural checks finally to all excessive special developments if the latter are not wisely restrained and controlled by the medical profession itself?

Nothing need be said about regulations of medical fees, which are being taken care of fairly satisfactorily by local medical societies; but not all doctors in Massachusetts appreciate fully the judicial functions of the Massachusetts Industrial Accident Board, and its medical adviser. Insurance companies naturally tend to think scales of industrial medical prices are too liberal, practitioners on the other hand sometimes consider the same prices too low. Many are inclined to be dissatisfied with necessary compromises. Great commendation, however, is due Dr. Francis Donoghue, medical representative of the Accident Board in helping to establish a much fairer schedule than would exist without his efforts. A sum of more

than one million dollars paid last year for medical and hospital services indicates a higher scale of payments than before the present law went into effect.

It is easy to express the opinion that revisions in medical practices are desirable, but the pertinent question can be asked, in what practical ways such desired ends are likely to be secured?

Examinations of collected clinical data reveal the fact that much of it consists of one-sided tabulations and presentations of advantages of special methods. And, because real progress demands impartial judgments of all advantages and disadvantages of any topic, one logical procedure would consist in going over the same ground that has been already covered, emphasizing and judging all unfavorable features impartially along with recognized advantages. Happily this disagreeable job is rendered unnecessary in part through the rapid loss in obscurity of innumerable ideas and past endeavors as new ones cause the older ones to be forgotten.

It would be feasible from another point of view to collect lists of patients who have had recommended special treatments, and who, refusing, have recovered quickly and satisfactorily, showing that the recommended measures were not necessary. Such cases are extremely easy to find, and strongly adverse statistics could be compiled readily by assembling sufficiently large numbers of cases.

In this manner it might be possible to swing the balance of opinion unfairly against valuable special methods of which surgery at present is perhaps the most important. Adverse data might spread the opinion widely that surgical statistics are unwarrantably optimistic, and that many cases classified as successes properly should be considered comparatively harmless, unnecessary, expensive procedures.

Exact percentages of unnecessary operations or other special treatments could not be estimated from such one-sided tabulations, nor could the far-reaching merits of surgery be obscured entirely although minimized by such deflation methods. Real merits, on the contrary, would stand out with greater prominence, presumably.

Collections of purely adverse statistics would call forth strong protest from specialists whose particular fields were invaded. Alarmists would declare that their welfares were being assailed, whereas the trimming away of superfluous ideas and methods never has obstructed medical progress nor welfares of doctors seriously yet, but instead always tends to direct more energy with increased force into more profitable channels and has been constructive rather than destructive in its character.

Dr. Richard C. Cabot of Boston has compiled interesting comparisons in a very large series of cases between clinical diagnoses made during life and autopsy findings on the same patients subsequently. He found among a wide variety of diseases there were variations in correct clinical diagnoses ranging from 95 per cent. in diabetes mellitus down to 16 per cent. in acute nephritis, averaging about 50 per cent. of successes for the whole series.

This piece of work offers a basis for interesting speculations. If it is assumed that similar percentages of errors in diagnosis exist in non-fatal cases, and if some allowance is made for unskillful treatment,—and certainly there are many opportunities for variable skill in chains of complicated therapeutic procedures so often needed,—if it is assumed that there are 50 per cent of good treatments and 50 per cent. of bad ones, then efficiency of combined diagnosis and treatment would average 25 per cent., while normal physiological processes of repair would be responsible mainly for recoveries in 75 per cent. of cases.

If this low estimate represents the truth, although it can neither be proved nor disproved, then increased judicial powers would appear to be more important now even than enthusiasm, energy, and high purposes in developing new methods and discovering new scientific facts. High ideals are very essential parts of best medical practice and high appreciations of medical accomplishments are most commendable, yet there are few advantages in self-deception, and consequently it is well to realize that medical progress would make more rapid strides if there were better balanced relationships between different medical departments.

If the medical profession were an enormous business corporation its directors undoubtedly would curtail collections of additional new material now until the tremendous stock on hand has been sorted, classified, and utilized to more complete advantages. There would be transference of workers from one department to other departments, if possible, where they needed more, and until a better balance had been reëstablished. The medical profession,

however, has no such efficiently organized set of important general managers whose duty it is to order such changes in a manner comparable to business methods.

If attempts were made to reduce inflated values of all medical care, evidence could be collected from among persons of Christian Science and allied beliefs who have recovered health under the influence of psychotherapy alone. A strong array of evidence could be mustered, evidence that has been sufficient to prove to a great many persons that all purposeful medical treatment is unnecessary. It has overwhelmed them to such a degree that they forget entirely the numberless undoubted benefits of established medical practice, and they belong in the same group as all extreme specialists who see only unbounded possibilities within their own departments.

Enough has been said, perhaps, to indicate the urgent increasing need for deliberate comparisons and better judgments, but matters of interest also are found in the continual attempts which are being made to improve medical efficiency in various ways.

Diagnoses and treatments by groups of specialists have been strongly advocated to meet rapidly growing volumes of medical knowledge, and it is claimed that a single physician cannot handle adequately all sides of problems which may arise. Undoubtedly great benefits have been derived already from group diagnosis and treatment.

It is proper, however, to point out the limitations of this method, the increased dangers of too much treatment, diminutions of close personal touch between patients and their doctors, and possibilities of increased harm as well as benefits when there is lack of harmony among ideas of specialists, as not infrequently happens. The efficiency of groups, as of individuals, ranges from one hundred per cent. down to zero and below zero. So that a medical group conceivably can do more harm at times than one of its members alone can do.

Extensions of medical examinations to healthy persons for the purpose of preventing developments as far as possible of their latent abnormal tendencies should be mentioned among other efforts being made toward increased medical efficiency, as well as ideas of wholesale concentrations of hospitals, improved care for numberless industrial cases and health insurance for the masses. All should be encouraged undoubtedly for sake of progress, but all should be submitted to most searching inspections for all disadvantages as well as for merits before acceptance, if greatest efficiency alone is sought. Some of the schemes being promoted for the good of patients seem to promise maximum benefits for their originators with rather meagre or expensive advantages for those for whom the plans are proposed.

Isn't it an appropriate time now when complex methods are tending to become more complex and elaborate, when organized medical practices tend to overshadow former simpler methods, to make revisions that will retain as great simplicity as possible, and to inquire what patients want themselves and what they are entitled to have?

Patients cling to personal friendships and faith in individual physicians although there are wonderful hospitals and some very effective organizations, because they prefer to be treated thoughtfully and deliberately as individuals instead of hurriedly as units simply in a big impersonal system.

It is interesting to note that many mature general practitioners keep this personal touch, retaining their broad conceptions and good common sense, and yet manage to increase their skill along single lines in which they are especially interested. On the other hand, many mature specialists manage to retain their general understandings of patients' problems while maintaining special skill along certain lines of treatment, so that the majority of patients still are handled on the scheme of one man's responsibility.

This appears to be a very desirable tendency that is not incompatible necessarily with improved organization of general character, and it tends to avoid the dangers arising from division of responsibilities in large groups such as represented in some hospital care. Each medical problem is found to be more and more an individual one the more closely it is studied; and if patients' interests are to remain of foremost importance there will be renewed efforts made to secure greatest simplicity, rapidity, and reasonable costs combined with one man responsibility, retention of close personal relations between patient and doctor, and small group opinions of variable nature, depending on the individual peculiarities of the case. Responsibilities of patients will remain

in hands of single physicians who retain their capacities along with their few associates both for good general and for some good special judgments.

As undesirable tendencies, excessive personal ambitions of physicians, the irresistible lure of medical science, theoretical possibilities of enormous benefits for future patients or the community which sometimes never materialize, are successfully resisted and rights of patients now suffering are fully respected, there is increased likelihood in the long run for maximum benefits also for all other phases of medical work.

There are limitations to all medical endeavors in spite of wonderful advances in every direction, and it does not appear that increasingly complicated tasks are warranted now which are based mainly on enthusiasm and good motives. Promised results of treatment already have become greater than fulfillments actually are frequently. Judgments have to be improved to far greater degrees yet before many projects can be successfully carried out, and in this time of readjustments when all are groping amid the confusing wealth of ideas for profitable future lines of endeavor it should be kept in mind and emphasized that judicial branches of medicine offer favorable opportunities for improvement.

Book Reviews.

Gymnastic Treatment for Joint and Muscle Disabilities. By BREVET-COL. H. E. DEANE, R.A.M.C., with Prefaces by TEMP. COL. A. CARLESS and BREVET LIEUT.-COL. F. W. MOTT, F.R.S. London: Henry Frowde and Hodder & Stoughton, Oxford University Press, Warwick Square, E.C. 1918.

The value of gymnastic treatment for joint and muscle disabilities has been successfully tested by Colonel Deane at the Craydon War Hospital. This volume, *Gymnastic Treatment for Joint and Muscle Disabilities,* explains the principles of this treatment and points out why it is a more effective method than massage, radiant heat, or mechanical contrivances. One of the most vital factors in the reparative process is volition. Massage fails to bring into action a man's volition and motor centers; simple gymnastic exercises, however, require the coöperation of both mind and body and stimulate the patient toward increased effort. The gymnastic method is of further value in allowing the full use of associated movements; a man's sound limbs can be utilized in recovering the function of an injured one. A skipping-rope, Indian clubs, dumb-bells, a beam, a slanting ladder, parallel bars, a sparred plank, wall bars, ropes, and a nautical wheel make up enough apparatus for cultivating any movement. The use of each of these devices is described in this book. The author emphasizes the importance of the medical officer knowing thoroughly and being able to demonstrate all the exercises which he expects the men to do. The fact that this gymnastic treatment has benefited many men should stimulate members of the profession to investigate and follow Colonel Deane's methods of treatment.

Clinical Medicine for Nurses. By PAUL H. RINGER, A.B., M.D. Philadelphia: F. A. Davis Company, 1918.

This volume, *Clinical Medicine for Nurses,* offers to nurses a valuable description of the diseases which they are most frequently called upon to observe and interpret. The author emphasizes particularly the symptoms of various diseases and discusses their meaning, complications, and detection. The bacteriology and pathology of diseases are briefly presented, with a more detailed consideration of methods of treatment. Fever, heart diseases, kidney disturbances, pneumonia, tuberculosis, scarlet fever, diphtheria, anemia, and goitre, are some of the diseases discussed. This book covers its subject with more completeness than the ordinary textbook for nurses and eliminates the minute details which render textbooks on medicine too complicated for the pupil nurse. Many nurses who have long felt the need of a book of this character will appreciate the helpfulness of this volume.

Psychogymnastics and Society Drama. By DELBERT M. STALEY, A.M., Ph.D., and HELEN C. CULVER. Boston: Richard G. Badger. 1918.

Psychogymnastics and Society Drama is interesting and unique. Its subject is self-development and expression. The first part of the book deals with exercises denoting intelligence and explains how one may cultivate, by concentrated attention to the most trivial of exercises, that intangible quality, personality. The chief importance of this half of the book lies in its emphasis on the physiological significance of correct posture. The second part considers the relation of the individual to the drama of life and is of some psychological value. The book contains most detailed exercises which, if conscientiously followed, it is claimed by the author will elevate the individual to a new intellectual status, and will enable him so to adjust himself that he is in complete harmony with the universe and able to meet life's vicissitudes with an unsurmountable calm and poise.

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All letters containing business communications, or referring to the publication, subscription or advertising department of the Journal should be addressed to

BOSTON MEDICAL AND SURGICAL JOURNAL
126 Massachusetts Ave., Cor. Boylston St., Boston 17, Massachusetts

PUBLIC HEALTH IN LONDON.

THE report of the London County medical officer of health for the year 1919 is of particular interest inasmuch as it deals with the period of transition in London from war conditions to conditions practically normal. The estimated population of London in 1919 was 4,540,062. Although the housing problem would indicate that this figure represents an increased population, it is probably true that the scarcity of housing accommodation is due to a diminution of building and to an increase in marriages rather than to any appreciable increase in the total population. The estimated birth-rate for 1919 was 18.2 per 1,000, an increase of 2.2 over that of 1918. The death rate was 13.6, or 5.6 less than that of 1918, in spite of the 5,000 deaths attributed to influenza during 1919.

Infectious diseases were still prevalent in 1919 to a degree below the average, although the records for that year show higher figures than during the preceding three years. A number of small-pox cases were reported; there were more cases of diphtheria than since 1902, and scarlet fever continued to increase during 1919, as it has since 1917. It is interesting to notice that although prior to demobilization over 400,000 persons from all parts of Europe passed through London, the prediction made in the annual report for 1914 was realized and the disease showed a further decline. Among the soldiers, the diminution in mortality may be ascribed in large part to preventive inoculation; improvement in water supplies and a more vigilant inspection of fish and shell fish supplies are believed to be factors in the improvement among the civilian population. The report states that the prevalence of tuberculosis, influenza, cerebrospinal fever, poliomyelitis, and polioencephalitis (including encephalitis lethargica) indicates that there is a need for a "truer and more comprehensive epidemiology." Since 1914 one-half of the net cost of the borough council tuberculosis dispensaries has been met by the Council. An examination of thirty-three dispensaries in the London area has shown that each year the dispensaries deal with only one-half of the new cases of pulmonary tuberculosis and with only one-third of the non-pulmonary cases. More extensive home visiting by dispensary doctors and nurses has been recommended; it is desirable also that the dispensary work be coördinated more completely with that of the borough public health departments. There is need for about one hundred new beds for cases requiring observation and treatment in large general hospitals. Moderately advanced and chronic progressive cases present one of the most difficult problems; it has been recommended that for these patients there be provided (1) a hygienic home; (2) occupation under medical supervision and suitable to the physical needs of the patient; and (3) measures whereby the savings of tuberculosis patients may be increased during periods of institutional treatment. For advanced cases 250 beds are needed, and for cases of surgical tuberculosis in adults there is also very inadequate accommodation.

It is unfortunate that because of the scarcity of physicians the medical assistance furnished by midwives increased nearly one hundred per cent. during 1919. Approximately 44,000, or 54%, of the total number of births in London, were attended by midwives. Deaths from pu-

erperal fever were 68 among 141 cases notified by medical practitioners, 35 among 112 cases notified by certified midwives, and 47 among 81 other cases. Notification was made of 856 cases of ophthalmia neonatorum apart from the practice of midwives. Arrangements have been made for the in-patient treatment at St. Margaret's Hospital, St. Pancras, of infants suffering from this disease. Hospital clinics for venereal disease reported 20,908 new patients in 1919, compared with 12,538 in 1918. It is hoped that during the present year in-patient treatment may be provided for infected pregnant women and for female children suffering from gonorrhoea.

The medical inspection of school children showed that in contrast with the steady improvement in nutrition during the war, some deterioration in that respect was observed in 1919. The percentage of undernourished children in 1919 was 6.1; in 1918 it was 5.5 per cent. Malnutrition was noticed particularly among entrants, of whom 4.7 of the boys and 4.4 per cent. of the girls were poorly nourished in 1918, as compared with 6.1 per cent. of boys and 5.7 per cent. of girls in 1919. Children with serious malnutrition increased from 0.5 per cent. to one per cent. during the year. A comparison of children examined in 1919 at the age of twelve years with the same children at eight years examined in 1915 showed a marked improvement in cleanliness and nutrition, and in the teeth and the condition of the throat and ears, but the heart and vision showed deterioration and among the girls there was an increase in the amount of deformity. It has been estimated that about 30,000 children in elementary schools require open-air education for varying periods. By the addition of two open-air schools and one tuberculosis open-air school, provision has been made for 4,000 children altogether. It is hoped that 8,000 may be cared for in open-air classes in parks and playgrounds, and that 4,000 younger children may be benefited by nursery schools; periods at holiday schools and camps may suffice for the remaining 14,000 older children.

The statistics furnished by the report for the year 1919 show that in spite of the difficulties attending the war reconstruction period, London has maintained her position as the healthiest large city in the world.

PUBLIC HEALTH COMMITTEE LECTURES.

THE Public Health Committee of the Massachusetts Medical Society was able in the past two years to arrange with well-known specialists in various medical fields to give talks at meetings of the District Medical Societies, on subjects of interest and importance to all practitioners. It is a pleasure to announce that a similar arrangement has been made this year and that the gentlemen named below are willing, without expense to the District Society, to give occasional talks of thirty or forty minutes, on subjects relating to the promotion of public health, and to extend opportunity for questions and discussion.

The district officers writing to ask for these lectures will kindly designate not only the name of the desired speaker, but the topic, the place and the hour of meeting, thus eliminating unnecessary correspondence.

Dr. J. B. Bill, Doctor of Public Health. Specialty, Preventive Medicine.

Dr. Frank Dunbar, Bacteriologist. Instructor in Bacteriology and Pathology, Tufts College Medical School.

Dr. Walter E. Fernald, Superintendent Mass. School for the Feeble-Minded. Specialty, Mental Hygiene.

Dr. Timothy Leary, Professor of Pathology, Tufts College Medical School. Medical Examiner Suffolk County.

Dr. Edwin H. Place, Physician-in-Chief, South Department, Boston City Hospital. Specialty, Contagious Diseases.

Dr. William T. Sedgwick, Department of Biology and Public Health, Massachusetts Institute of Technology.

Dr. C. Morton Smith, Chief of Department of Syphilis, Massachusetts General Hospital. Specialty, Syphilis.

Dr. George Gilbert Smith, Associate in Genito-Urinary Department, Harvard Medical School. Specialty, Genito-Urinary Diseases.

Dr. Lesley H. Spooner, Member of Staff, Out-Patient Department Massachusetts General Hospital. Specialty, Specific Diagnosis and Treatment of Pneumonia.

Dr. Howard A. Streeter, Director Subdivision of Venereal Diseases, Massachusetts Department of Health. Dr. Streeter gives a lecture with screen and films.

Dr. William C. Woodward, Health Commissioner, Boston.

Dr. George H. Wright, Lecturer on Dental Hygiene, Harvard Dental School. Specialty, Dental Surgery.

Secretaries of District Societies desiring to arrange for speakers from this list should communicate with the Secretary of the Committee, Dr. Annie Lee Hamilton, 141 Newbury Street, Boston 17, Mass.

MEDICAL NOTES.

Chair in Bronchoscopy and Oesophagoscopy.—The first medical chair in bronchoscopy and oesophagoscopy has been established in the Graduate School of Medicine of the University of Pennsylvania. The work will be conducted under the direction of Dr. Chevalier Jackson of Philadelphia. The new course is the result of the desire of many physicians and surgeons to be given instruction in the methods used by Dr. Jackson in the removal of foreign bodies from the lungs and air and food passages. Dr. Jackson received his medical education at Jefferson Medical College. He has been interested particularly in endoscopy and similar subjects, from the beginning of his medical career. Dr. Jackson has invented a number of appliances, including the electrically lighted "Jackson laryngoscope" and the distally lighted "Jackson bronchoscope and gastroscope," which have opened new fields in the removal of foreign bodies lodged in the bronchial tubes and revolutionized the treatment of these cases, reducing the mortality from eighty-five to less than two per cent. In addition to conducting the new course, Dr. Jackson will continue his work at Jefferson Medical College, where he is professor of laryngology.

Outbreak of the Plague among Turkish Troops.—A report dated September 1 announces that four cases of plague have been discovered in the Turkish government barracks at Scutari, across the Bosphorous from Constantinople. The allied sanitary commission has forbidden the landing of boats.

Destitution of Physicians in Vienna.—Our attention has been called to the destitution of physicians in Vienna. In the necessity of combating the increased mortality and alleviating the many ills of the undernourished population, their work must be continued at all events; yet they find it impossible to provide their children with food on the scanty government ration supplemented by their pitifully meager incomes. The American Relief Committee for Sufferers in Austria, 261 Madison Avenue, New York, has created a special fund for the relief of destitute physicians and surgeons in Vienna. Contributions may be made to Alvin W. Krech, Equitable Trust Company, 37 Wall Street, New York City.

Group Consultation Clinic at Goshen, New York.—The New York State Department of Health announced on August 28 that the success of the Group Consultation Clinic held at Goshen, New York, on three days of the preceding week by three hundred and fourteen physicians, was so notable that clinics of similar nature are to be planned immediately for other sections of the State. In speaking of the work of the clinic, Dr. E. C. Body is reported to have made the following statements:

"The Group Consultation Clinic was established by the State Department of Health in conjunction with the State Department of Education, the State Hospital Commission, the State Commission for Feeble-Minded, the State Charities Aid and the American Red Cross, with the object of providing such modern medical facilities for the country doctor as would enable him to reach a correct diagnosis in difficult and obscure cases. At the present time a rural physician who has a difficult or obscure case must send his patient to a large city to visit specialist after specialist, and at a great expense, before a diagnosis can be made. But the Group Consultation Clinic as conducted by the State Health Department furnishes the solution of the problem because all these facilities are really brought together to the physician for his use.

"The conduct of the clinic is as follows: Patients are referred to the clinic by their attending physician. After a careful history of the case the patient is referred to the proper consultant for examination. If the consultant thinks that additional information is necessary before a diagnosis is made, such a laboratory examination or an x-ray examination or another examination by another consultant, the case is referred to that department.

"When the examinations are completed the consultant reviews all the evidence, makes the diagnosis and any recommendations concerning the future course of procedure for the patient. All this information is then forwarded to the patient's attending physician. It is obvious that under this arrangement the relations between the patient and family doctor are not altered in any degree, and that the clinic is conducted along ethical lines."

INTERNATIONAL ASSOCIATION OF "PNEUMOTHORAX ARTIFICIALIS.—The International Association of "Pneumothorax Artificialis," of which the work was paralyzed during the long war, desires to resume its activity by inviting all former members of the Association to renew their subscription and all other physicians interested in artificial pneumothorax to send their names and addresses to Prof. Umberto Carpi, Lugano, Switzerland, and to become members.

The purpose of the Association is to spread all practical and scientific information concerning artificial pneumothorax. Although induced pneumothorax for therapeutic purposes has become remarkably prevalent (*"Bien que la diffusion de la thérapie du pneumothorax soit devenue trèc remarquable"*), it has remained a therapeutic procedure applied only by physicians specially trained and experienced in this operation. For the convenience of the patients who may be obliged to change their residences, to know the names and addresses of physicians who practise artificial pneumothorax is of great value, in order that the patient may continue the treatment by periodic refilling. A complete list of physicians practising artificial pneumothorax will be published with the scientific journal known as *Pneumothorax Therapeutique* for 1920-1921, edited by Carlo Forlanini. This list will be sent to all the members and to the most important medical societies, medical academies, and similar institutions of the different countries. In the journal will be enumerated and discussed all the world's literature on pneumothorax. The association will continue its labors under the policy indicated by the illustrious master and creator of artificial pneumothorax therapy. As soon as the finances of the society will permit the renewal of the publication, the editor will put himself in communication with the editors of such medical journals of other countries as are publishing articles on artificial pneumothorax. For the present these are *Die Sonderhefte des Tuberkulose Centralblattes ueber Lungenkollapstherapie* and the collected monographs in the journal *La Tuberculosi*, which appears in Rome. We trust that our very excellent *American Review of Tuberculosis*, edited by Prof. Allen K. Krause of Baltimore, will be included in this list.

The subscription price of 5 francs should be addressed to the General Secretary, Prof. U. Carpi, Lugano. The subscriber is entitled to receive the journal with the list of names. Those who desire to receive the monographs of the journals indicated should make a request for them to the General Secretary, who also has an international exchange office for all publications appertaining to artificial pneumothorax. Summaries in English, French, and German, on any topic relating to artificial pneumothorax will be gratefully received and published.

NEW YORK AND NEW ENGLAND ASSOCIATION OF RAILWAY SURGEONS.—The thirtieth annual session of the New York and New England Association of Railway Surgeons will be held at Hotel McAlpin, New York City, on October 19, 1920. The following addresses will be included in the program:

The Application of War Surgery to Civil Practice, Dr. J. M. Wainwright, Scranton, Pa.

Efficiency in Mechanical Treatment of Fractures, illustrated, Dr. George W. Hawley, Bridgeport, Conn.

The Conservation of Function in the Treatment of Fractures of the Femur, illustrated, Dr. Joseph A. Blake, New York City.

Workmen's Compensation—The Surgeon's Fee—and the Carrying Insurance Company, Dr. George Chaffee, Binghampton, N. Y.

President's Address, Dr. William B. Coley, New York City.

An Address, Mr. A. H. Smith, President, New York Central Lines.

Address in Surgery: Special Points in Surgery of the Gall-bladder and Ducts, Dr. George W. Crile, Cleveland, Ohio.

Osteoplastic Surgery, illustrated, Dr. Fred H. Albee, New York City.

How Can the Railway Surgeon Assist the Railway Claim Department?, Mr. W. S. Throop, Chief Claims Attorney, Erie Lines, New York City. Discussion opened by Dr. George K. Meynen, Jamaica, N. Y.

Fraudulent Claims, Mr. H. H. Downs, Chief Claims Attorney, New York Central Lines, New York City. Discussion opened by Dr. Edgar Vander Veer, Albany, N. Y.

Clinics will be held on October 20 and 21.

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending September 18, 1920, the number of deaths reported was 178 against 147 last year, with a rate of 12.41 against 9.62 last year. There were 26 deaths under one year of age against 27 last year.

The number of cases of principal reportable diseases were: Diphtheria, 31; scarlet fever, 21; measles, 5; whooping cough, 19; typhoid fever, 9; tuberculosis, 38.

Included in the above were the following cases of non-residents: Diphtheria, 3; scarlet

fever, 3; whooping cough, 1; typhoid fever, 2; tuberculosis, 1.

Total deaths from these diseases were: Whooping cough, 2; typhoid fever, 1; tuberculosis, 19.

Infantile paralysis cases, 30—9 non-residents included; deaths, 4,—2 non-residents included.

Consultation Clinics in Early Pulmonary Tuberculosis.—The State Department of Public Health announces to the physicians of the Commonwealth a series of Consultation Clinics in Early Pulmonary Tuberculosis. These clinics will be conducted by the Medical Staff of the state sanatoria, and opportunities will be afforded the family physician to obtain, without fee, expert diagnosis in this type of pulmonary disease.

Patients applying to these clinics must be accompanied by the family physician, or present a letter from him giving the history of the case and requesting an opinion.

These clinics were to begin in September, 1920. Further details are given in the accompanying table:

Worcester, Municipal Tuberculosis Dispensary, Belmont Hospital, first Wednesday of each month, 2 to 5 P.M., Medical Staff of the Rutland State Sanatorium.

Gardner, Municipal Tuberculosis Dispensary, Municipal Building, 50 Glazier Street, second Wednesday of each month, 2 to 5 P.M., Medical Staff of the Rutland State Sanatorium.

Fitchburg, Municipal Tuberculosis Dispensary, 366 Main Street, third Wdnesday of each month, 2 to 5 P.M., Medical Staff of the Rutland State Sanatorium.

Clinton, Municipal Tuberculosis Dispensary, Municipal Building, fourth Wednedsay of each month, 2 to 5 P.M., Medical Staff of the Rutland State Sanatorium.

Lowell Municipal Tuberculosis Dispensary, City Hall, first Wednesday of each month, 2 to 5 P.M., Medical Staff of the North Reading State Sanatorium.

Lawrence, Municipal Tuberculosis Dispensary, 31 Jackson Street, second Wednesday in each month, 2 to 5 P.M., Medical Staff of the North Reading State Sanatorium.

Haverhill, Municipal Tuberculosis Dispensary, City Hall, third Wednesday of each month, 2 to 5 P.M., Medical Staff of the North Reading State Sanatorium.

Woburn, Municipal Tuberculosis Dispensary, Board of Health rooms, fourth Wednesday of each month, 2 to 5 P.M., Medical Staff of the North Reading State Sanatorium.

Taunton, Municipal Tuberculosis Dispensary, City Hall, first Wednesday of each month, Medical Staff of the Lakeville State Sanatorium.

Brockton, Municipal Tuberculosis Dispensary, Board of Health office, City Hall, second Wednesday of each month, 2 to 5 P.M., Medical Staff of the Lakeville State Sanatorium.

Fall River, Municipal Tuberculosis Dispensary, Purchase Street, third Wednesday of each month, 2 to 5 P.M., Medical Staff of the Westfield State Sanatorium.

Plymouth, Municipal Tuberculosis Dispensary, Room G, Governor Bradford Building, Town Square, fourth Wednesday of each month, 2 to 5 P.M., Medical Staff of the Lakeville State Sanatorium.

Pittsfield, Municipal Tuberculosis Dispensary, first Wednesday of each month, 2 to 5 P.M., Medical Staff of the Westfield State Sanatorium.

Springfield, Municipal Tuberculosis Dispensary, 137½ State Street, second Wednesday of each month, 2 to 5 P.M., Medical Staff of the Westfield State Sanatorium.

Holyoke, Municipal Tuberculosis Dispensary, City Hall Annex, Room 412, third Wednesday of each month, 2 to 5 P.M., Medical Staff of the Westfield State Sanatorium.

Adams, Municipal Tuberculosis Dispensary, Greylock Bank Building, fourth Wednesday of each month, 2 to 5 P.M., Medical Staff of the Westfield State Sanatorium.

Facilities for consultation are provided at each State Sanatorium for every day of the week (Saturdays, Sundays, and holidays excepted) between the hours of 2 and 5 o'clock.

Attendance at these clinics is not restricted to the inhabitants of the cities named. Physicians are invited to make use of any clinic, it being inferred that each will select the one nearest his home city or town.

The Department of Public Health earnestly pleads for the coöperation of the family physician in this Consultation Service.

Obituary.

GEORGE FRANKLIN EAMES, M.D.

Dr. George Franklin Eames, of Boston, died at Scarboro Beach, Me., September 5, 1920. Dr. Eames was born at Swanville, Me., in 1854, and was the son of Franklin P. Eames of Belfast, Me. He studied medicine first at Jefferson Medical College, graduating in 1882, and subsequently at the University of Pennsylvania Dental College. He began his practice in Philadelphia, then moved to Bucksport, Me., and later established his practice at Beverly and Boston.

Dr. Eames was a member of the Massachusetts Dental Society, of which he had been president; the National Dental Society, the Massachusetts Medical Society, honorary member of the Maine Dental Society, and chairman of the Section on Stomatology of the American Medical Association. At one time he was professor in the old Boston Dental College, which was subsequently merged with the Tufts College Dental School. He was a member of the Boston Art Club, and as an expert tennis player he had figured in many tournaments,

and was the possessor of a number of trophies.

He was a frequent contributor to the magazines, was the author of several books dealing with dental subjects, and had read many papers before societies.

His immediate survivors are his widow, who was Miss Alice Foster of Beverly; and one son, Dr. Haller B. Eames of Boston, who since 1917 has been a lieutenant in the dental corps, U.S.N.

Correspondence.

REMOVAL OF ADHESIVE PLASTER WITH GASOLINE.

Holyoke, Sept. 13, 1920.

Mr. Editor:—

In the July 24 issue of the *Journal of the American Medical Association*, Dr. J. H. Carstens, of Detroit, published a note on the "Use of Adhesive Plaster in Closing Wounds," in which he commented on the discomfort of removing the plaster by the use of alcohol, the only agent suggested. Knowing a better method, I sent the brief note below to the *Journal*, and at the same time, entirely independently, Dr. A. J. Abbe, of Fall River, gave his experience in the same line. With the thought that possibly some of the constituency of the BOSTON MEDICAL AND SURGICAL JOURNAL might find the suggestions of value, I am enclosing.

Yours sincerely,
R. E. DICKSON.

(*Jour. A. M. A.*, Sept. 4, 1920.)

Mr. Editor:—

In a recent note, Dr. J. H. Carstens, in advocating the use of adhesive plaster in closing abdominal incisions, says: "In 10 or 12 days the plaster comes off easily and the patient does not complain, or only slightly. It can be soaked with alcohol, but the alcohol hurts more than removing the plaster without it." If an advocate of the use of plaster is not familiar with a better way of removing it certainly there are many others to whom this note may give a hint. Take a little gasoline in a common medicine dropper, scratch up with one's finger nail the tip of a corner of the plaster, let a drop of the gasoline flow under the edge, and instantly an inch of plaster will loosen. Another drop will remove the next inch, and so on. A bit of gauze held in place by plaster makes the best dressing for nearly all wounds or incisions about the eyes, face, neck, hands, etc. The plaster dressing can be removed daily, if desired, with absolutely no discomfort to the patient. If one once begins to use plaster, one will soon find that one has but little use for the slipping bandage.

ALANSON J. ABBE, M.D.,
Fall River, Mass.

Mr. Editor:

In the *Journal*, July 24, Dr. J. H. Carstens suggests that adhesive plaster be used in closing abdominal incisions. He speaks of removing the plaster at the end of ten or twelve days, if necessary, soaking it with alcohol, which is not altogether satisfactory as "the alcohol hurts more than removing the plaster without it." If one will use gasoline instead of alcohol, wiping the plaster over with it, and then with a little gasoline-soaked gauze or cotton peeling the plaster back from the skin, beginning at the edges, until it has been removed entirely, the patient will be happy and so will the physician. Cleansing the plaster accumulation at the edges of the strips in the same manner is easy. Some years ago I found this worked so well that I adopted it as a routine. It is certainly a satisfaction to avoid the needless nagging discomfort of plaster removals in so simple a manner.

R. E. DICKSON, M.D.,
Holyoke, Mass.

The Massachusetts Medical Society.

A stated meeting of the Council will be held in John Ware Hall, Boston Medical Library, 8 The Fenway, Wednesday, October 6, 1920, at twelve o'clock, noon.

BUSINESS:

Reports of committees.
Appointment of Auditing Committee.
Appointment of delegates to the Conferences of the American Medical Association at Chicago.
Appointment of delegates to the annual meeting of the Vermont State Medical Society at Rutland, October 7 and 8, 1920.
Incidental business.

WALTER L. BURRAGE,
Boston, Sept. 29, 1920. *Secretary.*

Councilors are reminded to sign the attendance book before the meeting.

The Cotting Lunch will be served immediately after the meeting.

ABSTRACT OF REPORT OF COMMITTEE OF ARRANGEMENTS.

Tentative plan for the Anniversary of 1921.

On account of the meeting of the American Medical Association in Boston, the usual Section meetings will be omitted in 1921, and the officers of the Sections, elected in 1920, are to remain in office through the anniversary of 1922.

Tuesday, May 31, there will be meetings of the Supervisors at 4.30 P.M., and the Council at 5.00 P.M. The Shattuck Lecture will be given by Dr. Haven Emerson of New York at 8.00 P.M.; all of the meetings of this day being in John Ware Hall at the Library.

Wednesday, June 1, there will be the annual business meeting of the Society at 9.30 A.M., followed by papers and by the Annual Discourse by Dr. F. W. Anthony, of Haverhill, at 12.00, noon. The dinner will be at 1.30 P.M.; all of the exercises of Wednesday being held at the Copley Plaza Hotel.

CHARLES H. LAWRENCE, *Chairman.*

RECENT DEATHS.

DR. HARMON N. MORSE, professor of inorganic and analytical chemistry at Johns Hopkins University, died at his summer home at Cheabeague Island on September 9, at the age of sixty-two. Dr. Morse was a graduate of Amherst College and the University of Göttingen, and was a member of foreign and American scientific societies. He is survived by his widow, two sons and a daughter.